

**REMARKS**

Claims 1-7, 11-14, 17, 18, 21, 22, 25, 26, 34, 35, 37, 38 and 45-59 are pending in the present application.

Claims 1, 34, 35, 37 and 38 have been amended.

Claims 8-10, 15, 16, 19, 20, 23, 24, 27-33, 36 and 39-44 are cancelled.

Claims 45-59 are new.

No new matter has been entered by the amendments.

Reconsideration on the merits is respectfully requested.

The claims are believed to be allowable for the reasons set forth herein. Notice thereof is respectfully requested.

Applicants sincerely appreciate the consideration given to the previous arguments and the withdrawal of the previous rejections based thereon. The new grounds of rejection are believed to be traversed herein.

Claim Rejections - 35 USC § 103

Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thoms WO/0039809 in view of Kano (US Patent 5,012,107).

Thoms and Kano have been discussed previously and all comments of record are maintained. In summary, Thoms and Kano

fail to teach the layer arrangement of the claimed invention and fail to lead one of skill in the art to the layer arrangement of the claimed invention.

Claim 1, the sole independent claim, has been amended thereby rendering the rejection moot. Support for the amendment is provided on page 2, lines 20-26 and page 6, lines 24-25.

Claims 8-10, 15, 16, 19, 20, 23, 24, 27 and 28 are cancelled and all rejections directed thereto are moot.

The present invention is directed to mammography. It is well known in the art that mammographic imaging is particularly difficult due to the low subject contrast. As would be apparent mammographic imaging is primarily soft tissue imaging whereas other types include materials, such as bone and teeth, which strongly attenuate the radiation.

With regards to claim 1, as amended, the layered structure is not taught in the cited art nor is the criticality of the foil or layer which absorbs x-rays at a lower extent and avoids scattering to a greater extent. Even further, the prior art does not recite the layered arrangement and particularly with a layer thickness of needle-shaped crystals not exceeding 150  $\mu\text{m}$ .

The rejection of claims 1-28 under 35 U.S.C. 103(a) as being unpatentable over Thoms in view of Kano is rendered moot by amendment.

Claims 29-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thoms in view of Kano and further in view of Hell (U.S Patent Publication 2001/0007352).

Claims 29-33, 36 and 39-44 are cancelled thereby rendering the rejection directed thereto moot.

The limitations of claim 1, as amended, are included in pending claims 34, 35, 37 and 38 by dependence from claim 1.

Thoms and Kano have been addressed supra and all comments are relavent herein equally. In summary, Thoms and Kano fail to recite the layered structure and the combination of phosphor layer and absorbing foil or layer as set forth in claim 1.

The Office correctly notes that neither Thoms nor Kano disclose a needle shaped phosphor crystal. Hell is relied on for these teachings.

Hell fails to mitigate the deficiencies of the primary references and, in fact, leads one in a direction opposite to the claimed invention.

In paragraph [0045], Hell teaches that resolution and sensitivity are mutually exclusive which is in direct conflict with the instantly claimed invention. One of skill in the art would not envision the possibility of achieving both high resolution and high sensitivity as in the claimed invention.

In paragraph [0043] Hell describes a variety of supports indicating that they are all useful. One of skill in the art would therefore not consider the support to be a fruitful area of research for needle-shaped phosphors due to the fact that Hell equates the supports, teaches the exclusivity of resolution and sensitivity caused thereby, and teaches that the resolution and sensitivity is a function of the phosphor without regard for the support.

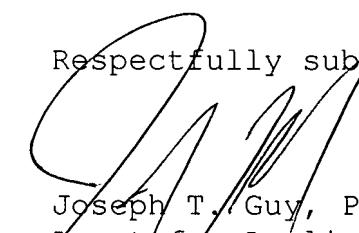
The rejection of 29-44 under 35 U.S.C. 103(a) as being unpatentable over Thoms in view of Kano and further in view of Hell is rendered moot by amendment.

#### **CONCLUSIONS**

Claims 1-7, 11-14, 17, 18, 21, 22, 25, 26, 34, 35, 37, 38 and 45-59 are pending in the present application. All claims are believed to be in condition for allowance. Notice thereof is respectfully requested.

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Respectfully submitted,

  
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